

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
ALEXANDRIA DIVISION**

COREPEX TECHNOLOGIES, INC.,

Plaintiff,

v.

WH ADMINISTRATORS, INC.,

Defendant.

Case No. 1:17-CV-00026-LMB-MSN

**DEFENDANT WH ADMINISTRATORS, INC.'S OPPOSITION TO PLAINTIFF'S
MOTION TO EXCLUDE DR. ATIF HASHMI'S OPINIONS**

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I. INTRODUCTION

Defendant WH Administrators, Inc. (“WHA”), by counsel, files this Opposition to Plaintiff Corepex Technologies, Inc.’s (“Corepex”) motion to exclude Dr. Atif Hashmi’s Opinions (“Motion”). The arguments contained in Corepex’s Motion are deceptive and misguided. Corepex’s motion should be rejected.

WHA retained Dr. Hashmi to rebut the arguments and opinions presented by Corepex’s expert, Scott Spendolini, and to opine on the originality and quality of the ETR and ETRC software applications registered by Corepex under Copyright registration numbers TXu 2-016-398 and TXu 2-016-399. ECF 62-1 (“Hashmi Report”) ¶1. Based on Dr. Hashmi’s extensive knowledge, skills, experience, training, and education, he is more than qualified to render such opinions.

In addition to having a Ph. D., Dr. Hashmi has more than 10 years of experience designing computer software. He has used a number of software development tools similar to the Oracle Application Express (“APEX”) tool used to develop the registered ETR and ETRC software applications. He has also personally developed complex software that has been tested and adopted by top technology companies. Dr. Hashmi’s lack of prior experience in using the APEX tool in no way precludes his testimony in this case, as Oracle’s own marketing materials tout the fact that the tool is easy to use and intentionally designed for individuals with little development experience. Given the simplicity of application development using the APEX tool and the fact that Dr. Hashmi has several years of experience developing complex software applications using various software application development tools, there is no clear basis for challenging Dr. Hashmi’s comprehension and understanding of the application development process using the APEX tool.

Nor can Dr. Hashmi be disqualified simply because he has not previously served as a testifying expert. As Corepex must be acutely aware, if prior expert testimony is a prerequisite for rendering expert testimony (which it is not), Corepex's own expert, Mr. Spendolini, would be similarly subject to disqualification.

Dr. Hashmi's methodology for assessing the originality of the ETR and ETRC software applications is reliable. Dr. Hashmi employed industry standard software tools to analyze what Corepex purported to be the registered ETR and ETRC software applications using Mr. Spendolini's express description of what components constitute the registered ETR and ETRC software applications. *See generally* ECF 62-3 ("Spendolini Initial Report").¹ The fact that there may be other software tools that Dr. Hashmi could have employed is of no moment, especially where there is no claim that the tools he used were unreliable.

Finally, Corepex's eleventh hour, manufactured assertion that Dr. Hashmi's opinions must be excluded because he did not analyze the ETR and ETRC "metadata" is a red herring. Dr. Hashmi evaluated the components of the registered ETR and ETRC software applications that Mr. Spendolini expressly described in the Spendolini Initial Report as comprising the registered software. Nowhere in the Spendolini Initial Report does he state that "metadata" is a component of the registered ETR and ETRC software applications, a position which Corepex asserts for the very first time in the Motion.² Nor does the Spendolini Initial Report anywhere

¹ In the Spendolini Initial Report, Mr. Spendolini expressly states that his "opinions relate to the design, functionality, ***coding***, capabilities, technical features, ***components*** and system usage concerning of ***the ETR and ETRC software*** for which I understand Corepex has ***copyrighted under Copyright Registration Numbers TXu 2-016-398 and TXu 2-016-399***, respectively." Spendolini Initial Report ¶1 (emphasis added).

² On the last day of discovery, in response to WHA's Requests for Admissions, Corepex dramatically scaled back the purported scope of its copyright registrations by excluding numerous aspects of what Corepex and its expert had previously claimed to constitute the ETR and ETRC programs. WHA continues to assess the implications of Corepex's new position.

state that the metadata is the *sole* registered component of the applications. Corepex's untenable position amounts to nothing more than litigation gamesmanship, is in direct conflict with the opinions of its own expert and the testimony of at least one of its developers, and is not a credible basis whatsoever for Dr. Hashmi's exclusion.

II. LEGAL STANDARD FOR THE ADMISSIBILITY OF EXPERT TESTIMONY

Under Fed. R. Evid. 702, "[a] witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if" the following conditions are satisfied: (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue; (b) the testimony is based on sufficient facts or data; (c) the testimony is the product of reliable principles and methods; and (d) the expert has reliably applied the principles and methods to the facts of the case. Fed. R. Evid. 702. "'When the methodology is sound, and the evidence relied upon sufficiently related to the case at hand, disputes about the degree of relevance or accuracy (above this minimum threshold) may go to the testimony's weight, but not its admissibility.'"

Activevideo Networks, Inc. v. Verizon Communs., Inc., No. 2:10cv248, 2011 U.S. Dist. LEXIS 157171, at *10-11 (E.D. Va. July 15, 2011) (quoting *i4i Ltd. P'ship v. Microsoft Corp.*, 598 F.3d 831, 852 (Fed. Cir. 2010)).

III. ARGUMENT

A. Dr. Hashmi Is Qualified To Testify As An Expert Based On His Knowledge, Skill, Experience, Training, And Education.

Dr. Hashmi has ample knowledge, skill, experience, training, and education to rebut the opinions of Corepex's software expert, Scott Spendolini, and to render opinions as to the lack of originality and subpar quality of the ETR and ETRC software applications. Declaration of J. Matthew Williams ("Williams Decl."), Ex. 1 ("Hashmi CV"). Fed. R. Evid. 702 provides that a

witness may be qualified as an expert on the grounds of “knowledge, skill, experience, training, or education.” Fed. R. Evid. 702 (emphasis added). The Fourth Circuit has explained that “the use of the disjunctive indicates that a witness may be qualified as an expert on any one of the five listed grounds.” *Friendship Heights Assocs. v. Vlastimil Koubek, A.I.A.*, 785 F.2d 1154, 1159 (4th Cir. 1986) (citing *Garrett v. Desa Indus., Inc.*, 705 F.2d 721, 724 (4th Cir. 1983)). A challenge to expert testimony based on lack of qualifications must demonstrate that “the purported expert [has] neither satisfactory knowledge, skill, experience, training nor education on the issue for which the opinion is proffered.” *Thomas J. Kline, Inc. v. Lorillard, Inc.*, 878 F.2d 791, 799 (4th Cir. 1989). Where an expert’s qualifications are challenged, the test for exclusion is a strict one, as “[o]ne knowledgeable about a particular subject need not be precisely informed about all details of the issues raised in order to offer an opinion.” *Id.* (internal quotations omitted).

Here, Dr. Hashmi’s knowledge, skill, experience, training, and education qualify him as an expert in the area of software development. Dr. Hashmi is an engineer who holds a B.S. in Computer Engineering, an M.S. in Electrical Engineering with a minor in Computer Science, and a Ph.D. in Electrical Engineering. *See* Hashmi Report ¶9. Dr. Hashmi received both his M.S. and Ph.D. from the University of Wisconsin – Madison, which is known for its top ranked engineering program. *Id.* Dr. Hashmi’s published scholarship includes several papers and peer-reviewed articles on a variety of computer science and computer engineering topics. *Id.* ¶12.

Dr. Hashmi is the co-founder and Chief Technology Officer of Thalchemy Corporation (“Thalchemy”), which develops complex software algorithms to process data produced by electronic sensors used in smart phone and wearable devices. *Id.* ¶8. Thalchemy’s software algorithms are used by many different companies, including top technology companies. *Id.*

Dr. Hashmi's work at Thalchemy includes personally developing complex software and working closely with other engineers to develop software. *Id.* ¶11. Thalchemy has been awarded numerous research grants from the National Science Foundation. *Id.*

Dr. Hashmi's professional experience includes work at Intel Corporation where, among other things, he worked on various software projects and learned best industry practices for developing and testing commercial software as well as a previous collaboration with IBM's research and development team to develop complex software. *Id.* ¶11. In addition, Dr. Hashmi has spent more than a decade designing computer software, and has programmed in numerous software programming languages, including C/C++, Java, Python, JavaScript, Embedded C and Assembly Language. *Id.* ¶10. He has developed software utilizing a number of software development tools, including Microsoft Visual Studios, Microsoft Visual Basics, and Android Studios.³ *See* ECF 62-2 ("Hashmi Dep. Tr.") at 17:4-17:11. These software development tools are similar to APEX in that one "drag[s] and drop[s] objects and elements to create user interfaces, assign attributes to those elements and specify what actions should happen if somebody interacts with those elements." *Id.* at 17:4-17:19. Further, at least one of the tools, Android Studios, is a metadata based tool in which elements are assigned metadata. *Id.* at 17:20-18:7. Dr. Hashmi has also performed technical forensic analysis in several cases, including those involving software copyright infringement and source code quality issues, in which he has

³ In response to Corepex's unreasonable request that Dr. Hashmi provide an on-the-spot recitation of the differences between these other software tools and the APEX tool during his deposition, Dr. Hashmi testified that he did not know whether he could "exactly pinpoint the differences," and that he would have to further "review [to] determine what the differences would be," because he did not "want to guess." Hashmi Dep. Tr. at 18:8-21. Corepex's mischaracterization of Dr. Hashmi's deposition testimony as a statement that "he didn't know," the differences should be disregarded. Motion at 4.

been called on to review and evaluate thousands of lines of source code developed in a number of programming languages, including SQL. *See* Hashmi Report ¶14; Hashmi CV at 2-3.

Dr. Hashmi is qualified to provide testimony in this case notwithstanding his prior inexperience using the Oracle APEX tool for at least two reasons. *First*, as Corepex is very well aware, Oracle’s APEX product documentation cited by Corepex in support of its own Motion touts the fact that APEX “utilizes a simple architecture” to allow users to “easily and quickly” build Web applications that are “often created by end users with *no development experience*,” and further states that “[f]ew programming skills are required, and *anyone can quickly learn to develop applications*.”⁴ *See* Motion at 3 n.2. Thus, if *anyone* can quickly learn how to use the APEX tool, including those with no software development experience and few programming skills, surely, Dr. Hashmi’s credentials far exceed what is required to analyze and render an opinion related to the ETR and ETRC software applications developed using the APEX tool. *Second*, it is well settled that an expert’s lack of practical experience with the specific product at issue does not render the expert unqualified to testify where, as here, the expert is otherwise qualified on the basis of his knowledge, skill, experience, training, *or* education.⁵ *See, e.g., Friendship Heights*, 785 F.2d at 1159-60 (finding expert who “lacked practical experience” with the specific item at issue, “was still qualified as an expert on the basis of her education, knowledge, and training.”); *Garrett*, 705 F.2d at 724-25 (“It was error . . . to rule that [the

⁴ Oracle Application Express 5.0 Overview, Oracle White Paper (April 2015), <http://www.oracle.com/technetwork/developer-tools/apex/learnmore/apex-50-overview-2526922.pdf>, at pp. 4, 6 (*accessed* August 9, 2017) (emphasis added).

⁵ Corepex’s attempt to characterize Dr. Hashmi’s extensive and sophisticated development expertise as being limited to “telecommunications” software development is plainly absurd. Motion at 5. To the extent that Corepex purports to rely on Dr. Hashmi’s deposition testimony regarding whether or not the nature of Thalchemy’s business is the “telecom industry,” Dr. Hashmi responded that he would describe it as the “smartphone and wearables industry.” Hashmi Dep. Tr. at 12:3-9. The industry that *Thalchemy* supports, however, serves in no way to limit the scope of *Dr. Hashmi*’s stated credentials.

expert] was unqualified simply because he lacked one of the five qualifications, namely, prior experience with stud drivers. . .[when he] was qualified by his education, knowledge, training, and skill as a holder of a Masters[sic] degree in mechanical engineering, professional engineer, and gunnery officer.”).

Similarly, the fact that Dr. Hashmi has not previously testified as an expert does not automatically make him “unqualified.” See *Orthoflex, Inc. v. ThermoTek, Inc.*, 986 F. Supp. 2d 776, 795 (N.D. Tex. 2013) (quoting *Rolls-Royce Corp. v. HEROS, Inc.*, No. 3:07-CV-0739-D, 2010 U.S. Dist. LEXIS 3716, at *5 (N.D. Tex. Jan. 14, 2010)) (“[An expert’s] lack of experience as an expert witness is no bar to his testimony.”). If Corepex’s assertion were true (and it is not), Mr. Spendolini must be similarly excluded for being a first time testifying expert.⁶ In addition, Corepex’s insinuation that Dr. Hashmi’s affiliation with Zeidman Consulting, Inc. somehow disqualifies him as expert is based on mere speculation. In both his report and during his deposition, Dr. Hashmi was transparent regarding Mr. Ziedman’s limited role in this matter, and Dr. Hashmi further testified that he alone wrote his expert report. Hashmi Dep. Tr. at 10:8-11:3; 13:3-15:9.

As Corepex has recognized, Dr. Hashmi has “excellent credentials.” Motion at 1. His extensive knowledge, skills, experience, training, and education more than qualify him to rebut the opinions proffered Mr. Spendolini and to render an opinion as to the lack of originality and subpar quality of the registered ETR and ETRC software applications.

⁶ See Williams Decl., Ex. 2 (“Spendolini Dep. Tr.”) at 16:16-18.

B. Dr. Hashmi Employed Reliable Methodologies And Principles In Concluding That The ETR And ETRC Software Applications Lack Originality And Are Of Subpar Quality.

The Fourth Circuit has held that several factors bear on a judge's determination of the reliability of an expert's testimony, including "(1) whether a theory or technique can be or has been tested; (2) whether it has been subjected to peer review and publication; (3) whether a technique has a high known or potential rate of error and whether there are standards controlling its operation; and (4) whether the theory or technique enjoys general acceptance within a relevant scientific community." *Cooper v. Smith & Nephew, Inc.*, 259 F.3d 194, 199 (4th Cir. 2001) (citing *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 592-94 (1993)). These factors are neither definitive, nor exhaustive, and some factors may not be pertinent in assessing reliability "depending on the nature of the issue, the expert's particular expertise, and the subject of his testimony." *Id.* (citing *Kumho Tire Co., v. Carmichael*, 526 U.S. 137, 150 (1999)).

As set forth more fully below, Dr. Hashmi's conclusions regarding the lack of originality and subpar quality of the ETR and ETRC software applications are drawn from reviewing Mr. Spendolini's opinions regarding the purportedly registered components of the ETR and ETRC software applications, and analyzing those components using industry standard methods and principles that bear the requisite indicia of reliability to support their admissibility.

1. Dr. Hashmi Used Industry Standard Tools To Analyze The Lack Of Originality Of The ETR And ETRC Software Applications Based On Mr. Spendolini's Disclosure Of The Components Of These Applications.

Dr. Hashmi analyzed the registered ETR and ETRC software applications in accordance with Mr. Spendolini's description of what constitutes the registered applications. In the Spendolini Initial Report, Mr. Spendolini opined that the registered ETR and ETRC software applications include "the APEX application component" and the following database objects: "function[s]," "index[es]," "package[s]," "procedure[s]," "sequence[s]," "table[s]," "trigger[s],"

and “view[s].” *See, e.g.*, Spendolini Initial Report ¶¶27-35; 78-82; *see also* table on pp. 20-21 (showing ETR and ETRC to consist of specified “APEX Components” and “Database Objects”). Mr. Spendolini further opined that the majority of source code for the registered ETR and ETRC software applications was found in the packages, procedures, functions, and triggers database objects, which are stored outside of APEX. *See id.* ¶78 (“Most of the business rules and complex processing of ETR & ETR-C are stored outside of APEX in PL/SQL packages”); ¶80 (“Most source code in an APEX application should be found in PL/SQL packages, procedures, functions and triggers. This is the case for ETR & ETR-C, as 36,641 total lines of code can be found in those database objects.”); ¶91 (“All source code – with the exception of a single procedure – is encapsulated in packages”); ¶123 (“Almost all source code written by Corepex was encapsulated in packages, making for an easier means to manage and maintain system. . . . On the APEX side, only standard APEX components were used.”). In his deposition, Mr. Spendolini testified as follows:

Q If you wanted to move the entirety of an application that you created for a particular customer, what are the steps that you would undertake?

A ***Export the file and then move any database objects, so tables, views, packages, procedures***, and then move any other assets, like images, style sheets, JavaScript files.

Spendolini Dep. Tr. at 130:10-17 (emphasis added).

Based on Mr. Spendolini’s description of what constitutes the entirety of the registered ETR and ETRC software applications, which was further confirmed during the deposition of

Corepex’s former developer and independent contractor on the WHA project, Mark Sminkey,⁷ Dr. Hashmi reviewed and analyzed the relevant files that comprised the entirety of the registered ETR and ETRC software applications. Specifically, Dr. Hashmi utilized the industry standard file comparison tool, BeyondCompare, to compare and analyze the similarity between the registered ETR and ETRC software application files submitted to the U.S. Copyright Office,⁸ and the source code contained in a publicly available, open source file, referred to as “APEX-SERT” that was also developed using APEX. Hashmi Report ¶¶40-47.

Using the BeyondCompare tool, Dr. Hashmi determined that the registered ETR and ETRC software applications contain source code “noticeably similar” to the source code in the open source file for APEX-SERT. *Id.* ¶¶43, 46. Due to the commonality of the source code, Dr. Hashmi opined that the common source code was automatically generated by APEX, is publicly available, and was not developed Corepex. *Id.* ¶¶43-44, 46-47. This conclusion conflicts with Corepex’s discovery representations and its representations to the Copyright Office.

Dr. Hashmi also assessed the originality of the rest of the source code files that were represented by Mr. Spendolini to be a part of the registered ETR and ETRC software – index_seq_type.sql, packages.sql, procedures.sql, tables.sql, trigger.sql, and view.sql.⁹ *Id.* ¶¶48-

⁷ See Williams Decl., Ex. 3 (“Sminkey Dep.”) Tr. at 29:14-30:2; 113:13-114:24 (“there’s the **database component**, and there’s the **application component**. So both of those encompass the entire, what we call the ETR[.]”) (emphasis added).

⁸ While Corepex submitted to the U.S. Copyright Office as deposit copies only *excerpts* of the APEX “export” files corresponding to the now registered ETR and ETRC software applications, Dr. Hashmi’s analysis of the registered ETR and ETRC software applications was not limited to only the material contained in the excerpted deposit copies. Rather, Dr. Hashmi identified the specific files that contain the entire contents of the files deposited with the U.S. Copyright Office, and he incorporated those files into his analysis of the registered ETR and ETRC source code. Hashmi Report ¶¶30, 42, 45.

⁹ See Spendolini Initial Report ¶¶27-35; 78-82; *see also* table on pp. 20-21 (showing ETR and ETRC to consist of specified “APEX Components” and “Database Objects”).

54. Dr. Hashmi analyzed these files using the industry standard tools, CodeMatch and SourceDetective, and concluded that a “noticeable percentage” of the identifiers, statements, comments/strings in the source code commonly occur on the Internet and therefore are not unique to Corepex.¹⁰ *Id.* ¶¶48-54.

Notably, Corepex’s own expert, Mr. Spendolini, also agreed that a “large percentage” of the registered ETR and ETRC software applications contain code that was not developed by Corepex due to the nature of the APEX tool. *See* Williams Decl., Ex. 4 (“Spendolini Rebuttal Report”) ¶16 (“[D]ue to the calls to re-instantiate¹¹ an APEX component which are identical across all export files,” “a large percentage of an APEX export file will be almost identical to any other APEX export.”); Spendolini Dep. Tr. at 119:11-124:2 (testifying to same). In addition, Mr. Sminkey also agreed that Corepex’s registered software applications contains code not authored by Corepex. *See* Sminkey Dep. Tr. at 127:19-25 (testifying that the registered ETR and ETRC software applications contain “Oracle generated code that would allow Oracle to import back this application into the Oracle application framework”); 174:7-17 (“I’d say ***one hundred percent of this code is not authored by Corepex.*** . . . all of this is generated by an Oracle generator, right, so this code is all generated by Oracle.”) (emphasis added).

¹⁰ Corepex’s representation of the length of the originality section of Dr. Hashmi’s Report, Section VI(B), as a “mere seven pages,” is deliberately misleading. *See* Motion at 10. As an initial matter, it is the substance of Dr. Hashmi’s analysis, not the number of pages of such analysis, that is relevant. In any event, as Corepex is well aware, in Section VI(B) of Dr. Hashmi’s Report, he cites to six exhibits that include *thousands* of pages in support of Dr. Hashmi’s analysis that the registered ETR and ETR software applications lack originality. Hashmi Report ¶¶43, 46, 50.

¹¹ Mr. Spendolini defines the term re-instantiate to mean “running the script so that [one] ha[s] an exact copy of the application which was here on say WHA servers, local to [one’s] system.” Spendolini Dep. Tr. at 133:7-12.

2. Corepex's Last Minute Renouncement Of Registration Of Anything Other Than Purported "Metadata" That Neither Mr. Spendolini Nor Dr. Hashmi Analyzed, Must Be Rejected As Nothing More Than Litigation Gamesmanship.

Faced with mounting evidence from its own expert, former employee, and Dr. Hashmi that its registered software applications contain a significant amount of code not authored by Corepex (and also not disclaimed in its registration applications), Corepex apparently decided to try to muddy the waters in this case by arguing for the first time that its copyright registrations are limited to only the "metadata" in the "export files" it deposited with the Copyright Office. Motion at 5-7. In his deposition, Mr. Spendolini defined "metadata" as "data used to describe data," and testified that in the APEX context, metadata is "options that the developer specifies when they're building an APEX application." Spendolini Dep. Tr. at 116:21-22; *see also* Spendolini Rebuttal Report ¶14 (defining metadata as "all values of the component options specified by developers").

Setting aside the broader issue of whether Corepex's purportedly registered "metadata" is expression that is afforded Copyright protection,¹² and whether Corepex had a duty to disclose to the U.S. Copyright Office that its deposit copies included source code automatically generated by the APEX tool and that it was seeking to register only "metadata,"¹³ Corepex's smoke screen

¹² Given that Corepex's alleged metadata is inextricably tied to instructions provided within the APEX tool, Spendolini Dep. Tr. at 119:3-127:7, there is a real question as to the validity of Corepex's registration for the ETR and ETRC software applications. *See, e.g., Tavory v. NTP, Inc.*, 495 F. Supp. 2d 531, 539 n.11 (E.D. Va. 2007) (Where a computer "process is embodied inextricably in the line-by-line instructions of the computer program, . . . then the process merges with expression and precludes copyright protection.") (quoting *Atari Games Corp. v. Nintendo of Am., Inc.*, 975 F.2d 832, 839-40 (Fed. Cir. 1992) (citations omitted)).

¹³ *See, e.g.,* Compendium of U.S. Copyright Office Practices, Third Ed., § 721.9 (G) ("If the computer program contains a substantial amount of unclaimable material, ***the applicant should exclude that material from the claim.*** . . . [T]his category includes . . . public domain material, or copyrightable material that is owned by a party other than the copyright claimant. ") (emphasis added").

Motion to exclude Dr. Hashmi's opinions simply because he analyzed the registered ETR and ETRC software applications as described in the Spendolini Initial Report, rather than their purported "metadata," should be denied.

Indeed, Mr. Spendolini testified that even he did not analyze the metadata in the registered ETR and ETRC software application:

Q And maybe I didn't explain this as well as I would have liked, but you reviewed a printout of what was filed with the copyright office?

A *I simply looked at it. I didn't review it.* It was probably, probably 200 pages, if not more, of very difficult-to-read instructions per se, and having known what an APEX export looks like, I spent no time with it, because *I'd gain nothing from that.*

Q What do you mean you[sic] "gain nothing from that"?

A Have you ever seen an APEX export file?

Q What does an APEX export file look like?

A It's the -- *APEX export file is the application metadata.* It's set up in a way so that you can reinstantiate that metadata somewhere else. It's not machine-readable in the sense that there's words in it, but *reading it wouldn't really give even an experienced APEX developer like myself a true sense as to what's in that file.* You would need to install it and run it to see what the file contains.

Spendolini Dep. Tr. at 113:17-114:14 (emphasis added).

A Again, I don't spend a whole lot of time looking at these. *There's really not much any APEX developer can get.* Usually it's when Oracle support tells you, go in, change the value of something to something and try it again. When things aren't working in the system, there's little practical use for these, other than moving the applications.

Id. at 130:2-9 (emphasis added).

While Dr. Hashmi utilized BeyondCompare to evaluate the entirety of the contents of the registered ETR and ETRC software applications, including any “metadata” appearing in those files, Hashmi Dep. Tr. at 40:9-20; 53:11-54:3, Dr. Hashmi did not render a separate opinion as to the originality or quality of such metadata, standing alone, in his report given that Mr. Spendolini had not expressly identified the metadata as comprising any part, much less *all*, of the registered ETR and ETRC software applications. Notably, despite the newly claimed importance of the so-called metadata in its own right, Mr. Spendolini’s rebuttal report failed to include any technical analysis of its originality or quality, beyond stamping it with the unsupported and undefined term “unique.” See, e.g., Spendolini Rebuttal Report ¶¶13, 28, 40. In fact, in an attempt to rebut Dr. Hashmi’s conclusions regarding the lack of originality and quality of the registered ETR and ETRC software applications, Mr. Spendolini analyzed the same ETR and ETRC files as Dr. Hashmi, and did so employing the same tools.

3. The Availability Of An Alternative Software Tool To Analyze The Originality Of The ETR And ETRC Software Applications Goes To The Weight, Not Admissibility, Of Dr. Hashmi’s Testimony.

Notably, Corepex does not challenge the reliability of the software comparison tools that Dr. Hashmi employed in reaching his opinions. Rather, Corepex merely makes an unsupported claim that one of the software tools employed by Dr. Hashmi, the BeyondCompare tool, “is not the standard practice for comparing APEX applications.” Motion at 9. Corepex’s criticisms are unavailing. BeyondCompare is an industry standard tool that has been used to analyze source code in numerous cases.¹⁴ Indeed, Mr. Spendolini used the same tool as Dr. Hashmi in his

¹⁴ See Brad Ulrich, *Quandary Peak Research, Utilizing a Source Code Analyst in Software Patent Infringement Suits: Finding and Selecting the Right Analyst*, July 1, 2013, (“Source code analysis requires use of specific tools (i.e., differential analysis tools like BeyondCompare and source code browsing and print tools like Notepad++).”), <https://quandarypeak.com/2013/07/utilizing-a-source-code-analyst-in-software-patent-infringement-suits-part-1-finding-and-selecting-the-right-analyst/>; Purva Sharma, Copperpod

attempt to rebut Dr. Hashmi's conclusions, and did not express any concerns with the performance or reliability of the tool. Spendolini Rebuttal Report ¶36. The purported existence of a free internal APEX application comparison tool that allegedly could have been used by Dr. Hashmi in conducting his comparative analysis instead of BeyondCompare is of no consequence, and if anything, goes only to the weight the Court should accord Dr. Hashmi's testimony, not its admissibility. *See, e.g., United States v. Eady*, No. 2:12-cr-00415-DCN-3, 2013 U.S. Dist. LEXIS 124266, at *16 (D.S.C. Aug. 30, 2013) (arguments regarding "preferred method[ologies]" go towards the weight of an expert's testimony "rather than its admissibility."); *Berlyn, Inc. v. Gazette Newspapers, Inc.*, 214 F. Supp. 2d 530, 540-41 (D. Md. 2002) (finding that expert opinion cannot be excluded simply because he could have "applied different methods").¹⁵

Intellectual Property, *Source Code Review: Best Practices*, Dec. 21, 2016, ("BeyondCompare - Useful for showing side-by-side comparisons of file content. Is language-independent and used most often for copyright and tradesecret cases."), <https://www.copperpodip.com/single-post/2016/12/22/Source-Code-Review-Best-Practices>.

¹⁵ Corepex fails to cite to any record evidence that would demonstrate the precise scope, functionality, and reliability of the purported APEX comparison tool. *See* Motion at 8-9. Further, Mr. Spendolini did not use, or even mention, the APEX comparison tool as an alternative to BeyondCompare in the Spendolini Rebuttal Report. While Corepex states that "a comparison between the ETR and APEX-SERT program was run using the APEX comparison tool," Motion at 9, it fails to cite to any evidence that would demonstrate the reliability of the APEX comparison tool's analysis, including an identification of who ran the analysis, the circumstances under which it was performed, and whether the files that were compared were the same exact files that Dr. Hashmi used. Indeed, during Dr. Hashmi's deposition, when presented with the alleged comparison of the ETR and an "APEX-SERT" program performed using the APEX comparison tool, Dr. Hashmi explained that the alleged APEX-SERT program used in the mock comparison may be entirely different from the one he used in forming his conclusions because the mock comparison had a file name completely different from the APEX-SERT file that Dr. Hashmi analyzed. Hashmi Dep. at 63:17-65:21; 75:17-76:12.

4. Dr. Hashmi's Opinions Regarding The Subpar Quality Of The ETR And ETRC Software Applications Are Based On Reliable Principles And Directly Respond To Mr. Spendolini's Conclusions.

Dr. Hashmi's opinions as to the subpar quality of the registered ETR and ETRC software applications were submitted in direct rebuttal to Mr. Spendolini's unsupported and subjective opinion that the applications were designed in accordance with generally accepted best practices. *See, e.g.*, Spendolini Initial Report ¶¶76, 78, 83, 85, 91, 100, 123, 126. Notwithstanding the fact that Dr. Hashmi did not opine on the quality of metadata appearing in the ETR and ETRC export files, Dr. Hashmi's testimony regarding the subpar quality of the ETR and ETRC software applications directly responds to Mr. Spendolini's opinions, and is therefore clearly relevant and admissible rebuttal opinion. *See* Fed. R. Civ. P. 26(a)(2)(D)(ii); *Wise v. C. R. Bard, Inc.*, No. 2:12-cv-01378, 2015 U.S. Dist. LEXIS 12473, at *4 (S.D.W. Va. Feb. 3, 2015) ("In the context of expert opinions, the Federal Rules of Civil Procedure define rebuttal evidence as 'evidence . . . intended solely to contradict or rebut evidence on the same subject matter identified by another party under Rule 26(a)(2)(B) or (C).'" (quoting Fed. R. Civ. P. 26(a)(2)(D)(ii)). Further, unlike Mr. Spendolini, Dr. Hashmi based his conclusions regarding the poor quality of the registered ETR and ETRC software applications on industry standard principles and methods. *See* Hashmi Report ¶¶55-93.

5. Dr. Hashmi Ran The Applications In Their Normal Operating Environment For A Sufficient Amount Of Time To Form His Opinions.

Corepex criticizes Dr. Hashmi because he described the time he spent using the allegedly infringed applications in their normal environment as "playing around" with them. Motion at 7. However, the fact that he used casual language to describe the time he spent observing how the databases look, feel and function does not undermine his opinions in any way. As set forth above, Dr. Hashmi properly utilized his experience and industry standard tools to analyze the

ETR and ETRC software applications based on Mr. Spendolini's description of what Corepex had registered. Dr. Hashmi also applied industry standards to dissect and rebut the numerous, faulty assertions proffered by Mr. Spendolini. A brief review of the depth and detail contained in his report demonstrate the time he invested in forming his opinions. Despite Corepex's claims to the contrary, Dr. Hashmi was not required to also assess the functionality of ETR and ETRC software by running the applications in their operating environment for any set period of time. Indeed, the primary goal of Dr. Hashmi – assessing the originality of the software code – did not involve assessing the programs' operations, as Corepex's copyright protection extends only to its creative *expression* of functionality (*i.e.*, source code), and not to the functionality itself apart by the software. *See, e.g., ATCS Int'l LLC v. Jefferson Contracting Corp.*, 807 F. Supp. 2d 516, 518 (E.D. Va. 2011) (“[I]t must be remembered that copyright protects the expression of ideas; it does not protect process or systems or its functional rather than creative expression.”); *Tavory v. NTP, Inc.*, 495 F. Supp. 2d 531, 539 n.11 (E.D. Va. 2007) (“[P]atent and copyright laws protect distinct aspects of a computer program. Title 35 protects the process or method performed by a computer program; [T]itle 17 protects the expression of that process or method.”) (quoting *Atari Games Corp. v. Nintendo of Am., Inc.*, 975 F.2d 832, 839-40 (Fed. Cir. 1992)). Accordingly, while running the ETR and ETRC software applications may provide a helpful orientation to the software, running the applications is not a necessary predicate to reaching a reliable opinion as to the applications' lack of originality and subpar quality.

6. Dr. Hashmi's Opinions Are Reliable And Relevant Notwithstanding Corepex's Revised Interpretation Of The Registered Components Of The ETR And ETRC Software Applications.

Notwithstanding Corepex's eleventh hour change in position as to what constitutes the registered components of the ETR and ETRC software applications at issue in this case, Dr. Hashmi's opinions are reliable and helpful to the Court. As set forth above, Dr. Hashmi's

opinions are based on the use of industry standard tools and principles that will assist this Court in understanding the lack of originality and subpar quality of the ETR and ETRC applications as a whole and to effectively rebut testimony that may be proffered by Mr. Spendolini. In addition, to the extent that Mr. Spendolini and/or Corepex's damages expert, Kimberly Schenk, are permitted to proffer testimony related to the alleged components of the ETR and ETRC software applications, whether or not those components are a part of Corepex's copyright registration, Dr. Hashmi's opinions should not be precluded from challenging such testimony. In sum, Corepex cannot get away with submitting an expert report that describes specific components of the registered ETR and ETRC software applications; receiving Dr. Hashmi's rebuttal opinion calling into question the originality and quality of those identified components; changing course by disavowing the components it originally described as constituting the registered software; identifying another component not previously analyzed by its expert, "metadata," as constituting the registered software application; and then blaming Dr. Hashmi for not specifically discussing that component in his rebuttal report. Such a litigation tactic is wholly inappropriate, and is not a proper or supported basis on which to exclude Dr. Hashmi's opinions.

IV. CONCLUSION

For all of the foregoing reasons, Corepex's Motion to Exclude Dr. Atif Hashmi's Opinions should be denied in its entirety.

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Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on August 17, 2017, a true copy of the foregoing WH Administrators, Inc.'s Opposition to Plaintiff's Motion to Exclude Dr. Atif Hashmi's Opinions was electronically filed with the Clerk of the Court using the CM/ECF system.

/s/

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